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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,835

05/31/2006

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EXAMINER

AFZALI, SARANG

ART UNIT

PAPER NUMBER

3726

MAIL DATE

DELIVERY MODE

06/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,835	Applicant(s) KIMURA ET AL.	
	Examiner SARANG AFZALI	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 12-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20070326&0212, 20060410, 20051215</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II, claims 7-11 in the reply filed on 4/28/2008 is acknowledged.

Specification

2. The abstract of the disclosure is objected to because it does not disclose the invention as claimed in the elected claims 7-11. Correction is required. See MPEP § 608.01(b).
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A METHOD OF MANUFACTURING A WHEEL RIM.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Yamaguchi et al. (US 6,598,294).

As applied to claim 7 & 8, AAPA (Specification, Background Art, pages 1 & 2) teaches that it is well known in the art to make a wheel rim by bringing the end faces of an elongated rectangular plate into abutment against each other, and thereafter the abutting end faces are joined to each other by resistance welding, MIG welding, or the like, thereby forming a hollow cylindrical body followed by forming a circumferential recess which is depressed from an outer circumferential wall of the hollow cylindrical body toward an inner circumferential wall.

However, AAPA does not explicitly teach the step of providing protrusion disposed near ends of a joined area of said hollow cylindrical body and extending in a joining direction.

Yamaguchi et al. teach a method of fabricating a hollow cylindrical body by providing protrusions (made by abutting opposing fingers/ear portions formed at four corners of a rectangular metallic workpiece) followed by roll forming the workpiece into a tubular member to effectively eliminate any possibility of cracks occurring at the weld joint during the subsequent drawing process.

It would have been obvious to one of ordinary skill in the art at the time of invention to have provided AAPA with the step of providing protrusion at the ends of a joined area as taught by Yamaguchi et al. in order to provide an effective weld joint that would withstand a possible cracking caused by the subsequent drop portion/recess forming step.

Note that Applicant's concern is to provide a rim having good dimensional accuracy and increased efficiency. Yamaguchi et al. is also concerned with production efficiency in making a tubular member with no defective weld joints.

As applied to claim 9, AAPA in view of Yamaguchi et al. teaches the invention cited with the exception of explicitly teaching the cylindrical body is cut circumferentially to form said protrusions.

However, it would have been obvious matter of design choice to cut the hollow cylindrical body circumferentially in order to form protrusions at the ends of the joined area, since the applicant has not disclosed what kind of advantage would this provide or is used for a particular purpose or solves a stated problem, therefore, it appears that the invention would perform equally well with any order of protrusion forming steps one of ordinary skill in the art finds suitable.

As applied to claim 11, AAPA in view of Yamaguchi et al. teaches the invention cited. AAPA further teaches that the recess is formed by a roll forming process (AAPA, page 2, paragraph 2).

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Yamaguchi et al. (US 6,598,294) as applied to claim 7 and further in view of Imamura et al. (US 2006/0107715).

As applied to claim 10, AAPA in view of Yamaguchi et al. teaches the invention cited including butt welding using conventional welding methods such as resistance, tungsten inert gas (TIG) and metal inert gas (MIG) welding methods (AAPA, page 2, paragraph 1 & Yamaguchi et al., col. 1, lines 32-35). However, neither AAPA nor Yamaguchi et al. teaches the claimed "friction stir welding" method.

It would have been obvious to one of ordinary skill in the art to have used any of the well-known welding methods to join the abutting edges of the hollow cylindrical body such as one used by Imamura et al. wherein any of available well-known welding methods such as resistance welding, MIG or friction stir welding (paragraphs [0015] & [0016]) is used to provide a joint weld for a cylindrical ring.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARANG AFZALI whose telephone number is (571)272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sarang Afzali/
Examiner, Art Unit 3726
6/5/2008

/David P. Bryant/
Supervisory Patent Examiner, Art Unit 3726